



A.D. 1859, 13th August. N^o 1874.

S P E C I F I C A T I O N

OF

RICHARD IRELAND WATTS, JOHN
OFFORD, AND JOHN ROBERTS THOMAS.

CONDENSING AND CONSUMING SMOKE.

LONDON:

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A.D. 1859, 13th AUGUST. N^o 1874.

Condensing and Consuming Smoke.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by Richard Ireland Watts, John Offord, and John Roberts Thomas at the Office of the Commissioners of Patents, with their Petition, on the 13th August 1859.

We, RICHARD IRELAND WATTS, of Plymouth, in the County of Devon,
5 Merchant, JOHN OFFORD, of the same Place, Gentleman, and JOHN ROBERTS THOMAS, also of the same Place, Engineer, do hereby declare the nature of the said Invention for “A METHOD OF CONDENSING AND CONSUMING SMOKE AND OTHER PRODUCTS OF COALS, ORES, AND SIMILAR SUBSTANCES, AND REDUCING THEM TO USEFUL MATERIALS,” to be as follows:—

10 A fan or fans (or mechanism of the like character) is or are made to revolve behind the fire, thus creating a strong draught, and drawing all the smoke into a channel where it is met by jets of steam, aqueous vapour, or water forced from revolving perforated tubes in the flue, or from fixed perforated surfaces. The smoke is further amalgamated with water upon reaching the fan, or by
15 steam or water being driven into the fan at the top, or by means of a perforated hollow axle whereby all the black particles of the smoke are thoroughly blended with water or aqueous vapour, and as the liquid flows from the fan, it is met by a further shower, and carried into the receiver. One or more fans may be thus used. Further, although the above might, in some cases, be
20 sufficient, yet in order to the full and complete carrying out of our Invention, the gases should be made to pass into a second fan to prepare them for combustion, where they are again mingled with water or aqueous vapour, as before described, and then pass, if necessary, through a receiver to be purified by coke,

Watts, Offord, & Thomas's Method of Condensing and Consuming Smoke, &c.

charcoal, and other materials; the medium of passage through the said purifying materials being tubes of perforated metal or wire gauze. The combustible gases can be used for intensifying the heat of the furnace or fire, or for the purpose of illumination, and these products (being mixed smoke, water, and such like) form very good liquid or solidified manure. The above 5 is a description of the nature of the Invention, the details whereof may be varied in practice.

LONDON :

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Printers to the Queen's most Excellent Majesty. 1860.